

=> fil reg

FILE 'REGISTRY' ENTERED AT 07:13:03 ON 06 NOV 2008  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
 COPYRIGHT (C) 2008 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file  
 provided by InfoChem.

STRUCTURE FILE UPDATES: 4 NOV 2008 HIGHEST RN 1070859-34-5  
 DICTIONARY FILE UPDATES: 4 NOV 2008 HIGHEST RN 1070859-34-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when  
 conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and  
 predicted properties as well as tags indicating availability of  
 experimental property data in the original document. For information  
 on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=> d ide can tot 125

L25 ANSWER 1 OF 3 REGISTRY COPYRIGHT 2008 ACS on STN  
 RN 874141-13-6 REGISTRY  
 ED Entered STN: 13 Feb 2006  
 CN Aluminum cobalt lithium magnesium titanium fluoride oxide (CA  
 INDEX NAME)  
 MF Al . Co . F . Li . Mg . O . Ti  
 CI TIS  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL

Component	Ratio	Component Registry Number
=====	=====	=====
O	x	17778-80-2
F	x	14762-94-8
Co	x	7440-48-4
Ti	x	7440-32-6
Mg	x	7439-95-4
Li	x	7439-93-2
Al	x	7429-90-5

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 144:174238

L25 ANSWER 2 OF 3 REGISTRY COPYRIGHT 2008 ACS on STN  
 RN 678158-96-8 REGISTRY  
 ED Entered STN: 30 Apr 2004  
 CN Cobalt lithium magnesium zirconium fluoride oxide (CA INDEX  
 NAME)

MF Co . F . Li . Mg . O . Zr  
 CI TIS  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL

Component	Ratio	Component Registry Number
O	x	17778-80-2
F	x	14762-94-8
Zr	x	7440-67-7
Co	x	7440-48-4
Mg	x	7439-95-4
Li	x	7439-93-2

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:324189

L25 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2008 ACS on STN  
 RN 678158-95-7 REGISTRY  
 ED Entered STN: 30 Apr 2004  
 CN Aluminum cobalt lithium zirconium fluoride oxide (CA INDEX  
 NAME)  
 MF Al . Co . F . Li . O . Zr  
 CI TIS  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL

Component	Ratio	Component Registry Number
O	x	17778-80-2
F	x	14762-94-8
Zr	x	7440-67-7
Co	x	7440-48-4
Li	x	7439-93-2
Al	x	7429-90-5

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:324189

=> fil hcaplus  
 FILE 'HCAPLUS' ENTERED AT 07:13:12 ON 06 NOV 2008  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
 COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing

of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 6 Nov 2008 VOL 149 ISS 19  
FILE LAST UPDATED: 4 Nov 2008 (20081104/ED)

HCAPLUS now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d bib abs hitstr retable tot 129

L29 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2006:79887 HCAPLUS Full-text

DN 144:174238

TI Cathode active mass for secondary lithium battery and its manufacture

IN Saito, Naoshi; Horichi, Kazushige; Uchida, Megumi;

Kawasato, Takeshi; Suhara, Manabu

PA Seimi Chemical Co., Ltd., Japan

SO PCT Int. Appl., 23 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO 2006009177	A1	20060126	WO 2005-JP13325	20050720	
	W:			AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW		
	RW:			AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM		
	CN 1981396	A	20070613	CN 2005-80022457	20050720	
	KR 2007033337	A	20070326	KR 2006-724284	20061120	
	US 20070117014	A1	20070524	US 2007-625060	20070119	
PRAI	JP 2004-212078	A	20040720			
	WO 2005-JP13325	W	20050720			

AB The active mass comprises a granular Li-Co composite oxide:  $\text{Li}_a\text{Co}_b\text{Al}_c\text{Mg}_d\text{AeOfFg}$  (A = Ti, Nb or Ta; a = 0.90-1.10; b = 0.97-1.00; c = 0.0001-0.02; d = 0.0001-0.02; e = 0.0001-0.01; f = 1.98-2.02; g = 0-0.02, and c+d+e = 0.0003-0.03); and is manufactured by firing a mixture, containing a Co material comprising  $\text{CoOOH}$ ,  $\text{Co}_3\text{O}_4$ , or  $\text{Co}(\text{OH})_2$ , a Li raw material, an Al raw material, a Mg raw material, an element A raw material, and an optional F material, in an O-containing atmospheric

IT 874141-13-6F

RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(comps. and manufacture of cathode active mass containing lithium-cobalt-magnesium-aluminum composite oxides for secondary

lithium batteries and its manufacture)

RN 874141-13-6 HCAPLUS

CN Aluminum cobalt lithium magnesium titanium fluoride oxide (CA INDEX NAME)

Component	Ratio	Component Registry Number
=====	=====	=====
O	x	17778-80-2
F	x	14762-94-8
Co	x	7440-48-4
Ti	x	7440-32-6
Mg	x	7439-95-4
Li	x	7439-93-2
Al	x	7429-90-5

## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
=====	=====	=====	=====	=====	=====
Ngk Insulators Ltd	2000			EP 000973217 A2	HCAPLUS
Ngk Insulators Ltd	2000			CA 002277231 A	HCAPLUS
Ngk Insulators Ltd	2000			US 006368750 B1	HCAPLUS
Ngk Insulators Ltd	2000			JP 2000200607 A	HCAPLUS
Ngk Insulators Ltd	2000			JP 200090933 A	
Ngk Insulators Ltd	2000			US 2002142221 A1	HCAPLUS
Ngk Insulators Ltd	2000			US 2005118505 A1	HCAPLUS
Samsung Sdi Kabushiki K	2003			JP 2003331845 A	HCAPLUS
Seimi Chemical Co Ltd	2004			JP 2004119218 A	HCAPLUS
Seimi Chemical Co Ltd	2004			JP 2004119221 A	HCAPLUS
Seimi Chemical Co Ltd	2004			WO 200430125 A1	

L29 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2004:292217 HCAPLUS Full-text

DN 140:324189

TI Cathode material for secondary lithium battery and its manufacture

IN Tatsumi, Koji; Suhara, Manabu; Saito, Naoshi  
; Horichi, Kazushige; Jitsugiri, Yukio

PA Seimi Chemical Co., Ltd., Japan

SO PCT Int. Appl., 32 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	WO 2004030126	A1	20040408	WO 2003-JP7223	20030606 <--
	W: CN, JP, KR, US				
	CN 1685543	A	20051019	CN 2003-822891	20030606 <--
	US 20050250013	A1	20051110	US 2005-526474	20050303 <--
PRAI	JP 2002-279198	A	20020925	<--	
	WO 2003-JP7223	W	20030606	<--	

AB The material comprises a particulate active mass: LiaCobAcBdOcFf (A = Al or Mg; B = transition element of Group 4; a = 0.90-1.10; b = 0.97-1.00; c, d = 0.0001-0.03; e = 1.98-2.02; f = 0-0.02; and c+d = 0.0001-0.03); where the element A, the element B and the fluorine evenly exist in the vicinity of the particle surface. The material, having the above active mass and comprising secondary particles each formed by aggregating  $\geq 10$  primary particles, is manufactured by firing a mixture of a Co raw material which contains CoOOH or Co(OH)<sub>2</sub>, Li<sub>2</sub>CO<sub>3</sub>, and a raw material which contains the element A and B.

IT 678158-95-7 678158-96-8

RL: DEV (Device component use); USES (Uses)

(compsns. and manufacture of cathodes containing lithium cobalt composite oxides

for secondary lithium batteries)

RN 678158-95-7 HCAPLUS

CN Aluminum cobalt lithium zirconium fluoride oxide (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	x	17778-80-2
F	x	14762-94-8
Zr	x	7440-67-7
Co	x	7440-48-4
Li	x	7439-93-2
Al	x	7429-90-5

RN 678158-96-8 HCAPLUS

CN Cobalt lithium magnesium zirconium fluoride oxide (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	x	17778-80-2
F	x	14762-94-8
Zr	x	7440-67-7
Co	x	7440-48-4
Mg	x	7439-95-4
Li	x	7439-93-2

=> => d 152 bib abs hitstr retable tot

L52 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2005:161125 HCAPLUS Full-text

DN 142:243654

TI Cathode material for secondary lithium battery and its manufacture

IN Tatsumi, Koji; Abe, Toshiaki; Saito, Naoshi;

Suhara, Manabu

PA Seimi Chemical Co., Ltd., Japan

SO PCT Int. Appl., 24 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005018027	A1	20050224	WO 2004-JP11748	20040816
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, BY, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BH, BG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

US 20060222951 A1 20061005 US 2005-546806 20050825  
 PRAI JP 2003-295171 A 20030819  
 WO 2004-JP11748 W 20040816

AB The cathode material is particles having a composition represented by:  
 LiaCobMgcAdOeFf (A = group VI transition element or group XIV element; a =  
 0.90-1.10; b = 0.97-1.00; c = 0.0001-0.03; d = 0.0001-0.03; e = 1.98-2.02; f =  
 0-0.02; c+d = 0.0001-0.03); where Mg, the element A and F exist uniformly in  
 the vicinity of the surfaces of the particles. The cathode material is  
 manufactured by mixing Li2CO3 with a raw material, containing Mg, the element  
 A and optional F, and a Co raw material, containing Co(OH) or CoOOH particles  
 which consisting of secondary particles formed by aggregating ≥10 primary  
 particles.

IT 678159-01-8F, Cobalt lithium fluoride oxide (Co0.99LiF0.01O1.99)  
 RL: DEV (Device component use); IMF (Industrial manufacture); PREP  
 (Preparation); USES (Uses)  
 (manufacture and compns. of cathode materials containing lithium magnesium  
 composite oxides for secondary lithium batteries)

RN 678159-01-8 HCAPLUS

CN Cobalt lithium fluoride oxide (Co0.99LiF0.01O1.99) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
O	1.99	17778-80-2
F	0.01	14762-94-8
Co	0.99	7440-48-4
Li	1	7439-93-2

## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Fuji Photo Film Co Ltd	1995			JP 07-29603 A	HCAPLUS
Fuji Photo Film Co Ltd	1995			US 5478674 A1	HCAPLUS
Fuji Photo Film Co Ltd	1995			EP 630064 A1	HCAPLUS
Kao Corp	2000			JP 200011993 A	
Sakai Chemical Industry	1998			JP 10-1316 A	HCAPLUS
Sansei Denkan Kabushiki	1999			JP 11-317230 A	HCAPLUS
Sansei Denkan Kabushiki	1999			US 200261444 A1	
Sumitomo Metal Mining C	2003			JP 2003331843 A	HCAPLUS
Tdk Corp	2002			US 2002192549 A1	HCAPLUS
Tdk Corp	2002			JP 2002246027 A	HCAPLUS
Toda Kogyo Kabushiki Ka	2002			EP 1211741 A2	HCAPLUS
Toda Kogyo Kabushiki Ka	2002			JP 2002231246 A	HCAPLUS
Toda Kogyo Kabushiki Ka	2002			US 200298416 A1	

L52 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2004:292217 HCAPLUS Full-text

DN 140:324189

TI Cathode material for secondary lithium battery and its  
 manufacture

IN Tatsumi, Koji; Suhara, Manabu; Saito, Naoshi  
 ; Horichi, Kazushige; Jitsugiri, Yukio

PA Seimi Chemical Co., Ltd., Japan

SO PCT Int. Appl., 32 pp.  
 CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
------------	------	------	-----------------	------

```

-----
PI  WO 2004030126      A1      20040408      WO 2003-JP7223      20030606 <--
      W:  CN, JP, KR, US
      CN 1685543      A      20051019      CN 2003-822891      20030606 <--
      US 20050250013      A1      20051110      US 2005-526474      20050303 <--
PRAI JP 2002-279198      A      20020925      <--
      WO 2003-JP7223      W      20030606      <--

```

AB The material comprises a particulate active mass: LiaCobAcBdOcFf (A = Al or Mg; B = transition element of Group 4; a = 0.90-1.10; b = 0.97-1.00; c, d = 0.0001-0.03; e = 1.98-2.02; f = 0-0.02; and c+d = 0.0001-0.03); where the element A, the element B and the fluorine evenly exist in the vicinity of the particle surface. The material, having the above active mass and comprising secondary particles each formed by aggregating  $\geq 10$  primary particles, is manufactured by firing a mixture of a Co raw material which contains CoOOH or Co(OH)<sub>2</sub>, Li<sub>2</sub>CO<sub>3</sub>, and a raw material which contains the element A and B.

IT 153835-37-1, Aluminum cobalt lithium titanium oxide  
 253868-42-7, Cobalt lithium magnesium titanium oxide  
 364589-06-0, Aluminum cobalt lithium zirconium oxide  
 (Al<sub>0.01</sub>Co<sub>0.98</sub>LiZr<sub>0.01</sub>O<sub>2</sub>) 642999-33-5, Cobalt lithium magnesium  
 zirconium oxide 678158-97-9, Aluminum cobalt hafnium lithium  
 oxide 678158-98-0, Cobalt hafnium lithium magnesium oxide  
 678158-99-1, Cobalt lithium magnesium zirconium oxide  
 (Co<sub>0.98</sub>LiMg<sub>0.01</sub>Zr<sub>0.01</sub>O<sub>2</sub>) 678159-00-7, Aluminum cobalt lithium  
 zirconium oxide 678159-01-8, Cobalt lithium fluoride  
 oxide (Co<sub>0.99</sub>LiF<sub>0.01</sub>O<sub>1.99</sub>)

RL: DEV (Device component use); USES (Uses)

(compns. and manufacture of cathodes containing lithium cobalt composite  
 oxides

for secondary lithium batteries)

RN 153835-37-1 HCAPLUS

CN Aluminum cobalt lithium titanium oxide (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	x	17778-80-2
Co	x	7440-48-4
Ti	x	7440-32-6
Li	x	7439-93-2
Al	x	7429-90-5

RN 253868-42-7 HCAPLUS

CN Cobalt lithium magnesium titanium oxide (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	x	17778-80-2
Co	x	7440-48-4
Ti	x	7440-32-6
Mg	x	7439-95-4
Li	x	7439-93-2

RN 364589-06-0 HCAPLUS

CN Aluminum cobalt lithium zirconium oxide (Al<sub>0.01</sub>Co<sub>0.98</sub>LiZr<sub>0.01</sub>O<sub>2</sub>) (CA  
 INDEX NAME)

Component	Ratio	Component Registry Number
-----------	-------	------------------------------

O		2		17778-80-2
Zr		0.01		7440-67-7
Co		0.98		7440-48-4
Li		1		7439-93-2
Al		0.01		7429-90-5

RN 642999-33-5 HCAPLUS

CN Cobalt lithium magnesium zirconium oxide (CA INDEX NAME)

Component		Ratio		Component
				Registry Number
=====	+	=====	+	=====
O		x		17778-80-2
Zr		x		7440-67-7
Co		x		7440-48-4
Mg		x		7439-95-4
Li		x		7439-93-2

RN 678158-97-9 HCAPLUS

CN Aluminum cobalt hafnium lithium oxide (CA INDEX NAME)

Component		Ratio		Component
				Registry Number
=====	+	=====	+	=====
O		x		17778-80-2
Hf		x		7440-58-6
Co		x		7440-48-4
Li		x		7439-93-2
Al		x		7429-90-5

RN 678158-98-0 HCAPLUS

CN Cobalt hafnium lithium magnesium oxide (CA INDEX NAME)

Component		Ratio		Component
				Registry Number
=====	+	=====	+	=====
O		x		17778-80-2
Hf		x		7440-58-6
Co		x		7440-48-4
Mg		x		7439-95-4
Li		x		7439-93-2

RN 678158-99-1 HCAPLUS

CN Cobalt lithium magnesium zirconium oxide (Co<sub>0.98</sub>LiMg<sub>0.01</sub>Zr<sub>0.01</sub>O<sub>2</sub>) (CA INDEX NAME)

Component		Ratio		Component
				Registry Number
=====	+	=====	+	=====
O		2		17778-80-2
Zr		0.01		7440-67-7
Co		0.98		7440-48-4
Mg		0.01		7439-95-4
Li		1		7439-93-2

RN 678159-00-7 HCAPLUS

CN Aluminum cobalt lithium zirconium oxide (CA INDEX NAME)

Component		Ratio		Component
				Registry Number



Component	Ratio	Component
O	x	17778-80-2
Zr	x	7440-67-7
Co	x	7440-48-4
Li	x	7439-93-2
Al	x	7429-90-5

RN 678159-01-8 HCAPLUS

CN Cobalt lithium fluoride oxide (Co<sub>0.99</sub>LiF<sub>0.01</sub>O<sub>1.99</sub>) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
O	1.99	17778-80-2
F	0.01	14762-94-8
Co	0.99	7440-48-4
Li	1	7439-93-2

L52 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2003:219342 HCAPLUS Full-text

DN 138:257830

TI Cathode active mass and secondary lithium battery

IN Takeuchi, Hajime; Endo, Shota; Amanomiya, Kazuki; Tanaka, Hiromasa; Sakai, Akira; Shirakawa, Yasuhiro; Oya, Yasumasa

PA Toshiba Corp., Japan; Toshiba Electronic Engineering Corp.

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003086181	A	20030320	JP 2001-275080	20010911 <--
PRAI	JP 2001-275080		20010911	<--	

AB The active mass comprises a hexagonal structured oxide:  $\text{Li}_x\text{Co}_1\text{-yMyO}_2$  or  $\text{Li}_x\text{Co}_1\text{-yM'yO}_2\text{-y}$  (M is  $\geq 1$  metal element having ion radius larger than  $\text{Co}^{3+}$  and average valence of 3; M' is  $\geq 1$  metal element having ion radius larger than  $\text{Co}^{3+}$  and average valence of 2;  $x = 0.4\text{-}2.0$ ;  $0 < y \leq 0.2$ ). The battery has a cathode containing the above described active mass, an anode, a separator between the 2 electrodes in a battery case, and an electrolyte filled inside the battery case.

IT 502616-36-6, Cobalt lithium magnesium fluoride oxide (Co<sub>0.9</sub>LiMg<sub>0.1</sub>F<sub>0.1</sub>O<sub>1.9</sub>) 502616-37-7, Cobalt lithium magnesium fluoride oxide (Co<sub>0.8</sub>LiMg<sub>0.2</sub>F<sub>0.2</sub>O<sub>1.8</sub>) 502616-40-2, Cobalt lithium magnesium titanium oxide (Co<sub>0.8</sub>LiMg<sub>0.1</sub>Ti<sub>0.1</sub>O<sub>2</sub>) 502616-42-4, Cobalt hafnium lithium magnesium oxide (Co<sub>0.8</sub>Hf<sub>0.1</sub>LiMg<sub>0.1</sub>O<sub>2</sub>)

RL: DEV (Device component use); USES (Uses)

(comps. of cathodes containing lithium cobalt composite oxides for secondary lithium batteries)

RN 502616-36-6 HCAPLUS

CN Cobalt lithium magnesium fluoride oxide (Co<sub>0.9</sub>LiMg<sub>0.1</sub>F<sub>0.1</sub>O<sub>1.9</sub>) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
O	1.9	17778-80-2

F		0.1		14762-94-8
Co		0.9		7440-48-4
Mg		0.1		7439-95-4
Li		1		7439-93-2

RN 502616-37-7 HCAPLUS

CN Cobalt lithium magnesium fluoride oxide (Co0.8LiMg0.2F0.2O1.8) (CA INDEX NAME)

Component		Ratio		Component Registry Number
=====				
O		1.8		17778-80-2
F		0.2		14762-94-8
Co		0.8		7440-48-4
Mg		0.2		7439-95-4
Li		1		7439-93-2

RN 502616-40-2 HCAPLUS

CN Cobalt lithium magnesium titanium oxide (Co0.8LiMg0.1Ti0.1O2) (CA INDEX NAME)

Component		Ratio		Component Registry Number
=====				
O		2		17778-80-2
Co		0.8		7440-48-4
Ti		0.1		7440-32-6
Mg		0.1		7439-95-4
Li		1		7439-93-2

RN 502616-42-4 HCAPLUS

CN Cobalt hafnium lithium magnesium oxide (Co0.8Hf0.1LiMg0.1O2) (CA INDEX NAME)

Component		Ratio		Component Registry Number
=====				
O		2		17778-80-2
Hf		0.1		7440-58-6
Co		0.8		7440-48-4
Mg		0.1		7439-95-4
Li		1		7439-93-2

=&gt; d his

(FILE 'HOME' ENTERED AT 06:52:04 ON 06 NOV 2008)  
SET COST OFF

FILE 'HCAPLUS' ENTERED AT 06:52:39 ON 06 NOV 2008

L1 1 S US20050250013/PN OR (US2005-526474# OR WO2003-JP7223 OR JP200  
E TATSUMI/AU  
L2 1 S E3  
E TATSUMI K/AU  
L3 131 S E3,E47  
E TATSUMI NAME/AU  
L4 9 S E4  
E KOJI/AU

L5 36 S E3,E86,E118  
     E KO JI/AU  
     E SUHARA/AU  
 L6 172 S E45-E47,E57  
     E MANABU/AU  
 L7 2 S E22  
     E SAITO/AU  
 L8 11 S E3  
     E SAITO N/AU  
 L9 1087 S E3-E5,E26,E32,E52  
     E NAOSHI/AU  
     E HORICHI/AU  
 L10 13 S E7  
     E KAZUSHIGE/AU  
 L11 2 S E3  
     E JITSUGIRI/AU  
 L12 32 S E3,E5,E6  
     E YUKIO/AU  
 L13 1 S E3  
     E L1 PA  
     E SEIMI/CO  
 L14 321 S E4-E12/CO,PA,CS  
     E E6+ALL  
     E E1+ALL  
 L15 17738 S E2+RT OR E64-E66 OR E2-E66/PA,CS  
     SEL RN L1

FILE 'REGISTRY' ENTERED AT 06:58:13 ON 06 NOV 2008

L16 12 S E1-E12  
 L17 7855 S (LI/ELS OR LITHIUM OR 7439-93-2/CRN) AND (O/ELS OR OXIDE OR 1  
 L18 1274 S L17 AND (AL/ELS OR ALUMINUM OR 7429-90-5/CRN)  
 L19 892 S L17 AND (MG/ELS OR MAGNESIUM OR 7439-95-4/CRN)  
 L20 1916 S L18,L19  
 L21 118 S L20 AND ((TI OR ZR OR HF)/ELS OR TITANIUM OR ZIRCONIUM OR HAF  
 L22 6 S L21 AND (F/ELS OR FLUORINE OR FLUORIDE OR 14762-94-8/CRN)  
 L23 3 S L22 NOT (NI OR P)/ELS  
 L24 2 S L16 AND L22  
 L25 3 S L23,L24  
 L26 112 S L21 NOT L22  
 L27 41 S L26 NOT ((SN OR GE OR NI OR FE OR P OR SI OR MN)/ELS OR NICKE

FILE 'HCAPLUS' ENTERED AT 07:11:07 ON 06 NOV 2008

L28 2 S L25  
 L29 2 S L28 AND L1-L15  
 L30 62 S L27  
 L31 9 S L30 AND L1-L15

FILE 'REGISTRY' ENTERED AT 07:13:03 ON 06 NOV 2008

FILE 'HCAPLUS' ENTERED AT 07:13:12 ON 06 NOV 2008

L32 60 S L30 AND H01M/IPC,IC,ICM,ICS,EPC  
 L33 61 S L30 AND BATTERY  
 L34 1 S L32,L33 AND PY<=2005 NOT P/DT  
 L35 33 S L32,L33 AND (PD<=20050303 OR PRD<=20050303 OR AD<=20050303) A  
 L36 17 S L32,L33 AND (PD<=20030606 OR PRD<=20030606 OR AD<=20030606) A  
 L37 1 S L31 AND L36  
 L38 10 S L32,L33 AND (PD<=20020925 OR PRD<=20020925 OR AD<=20020925) A  
 L39 10 S L37,L38  
 L40 3 S L39 AND (F OR ?FLUOR?)  
 L41 2 S L40 NOT 138:224204/DN

L42            7 S L36 NOT L39  
L43            3 S L42 AND (F OR ?FLUOR?)  
L44            2 S L37,L41  
L45            2 S L44 AND L1-L15,L32-L44  
              SEL RN

FILE 'REGISTRY' ENTERED AT 07:22:08 ON 06 NOV 2008

L46            20 S E13-E32  
L47            5 S L46 AND F/ELS  
L48            3 S L47 NOT L25

FILE 'HCAPLUS' ENTERED AT 07:22:35 ON 06 NOV 2008

L49            3 S L48  
L50            1 S L49 NOT L45  
L51            1 S L50 AND L1-L15,L32-L45,L49-L50  
L52            3 S L45,L49-L51

=>